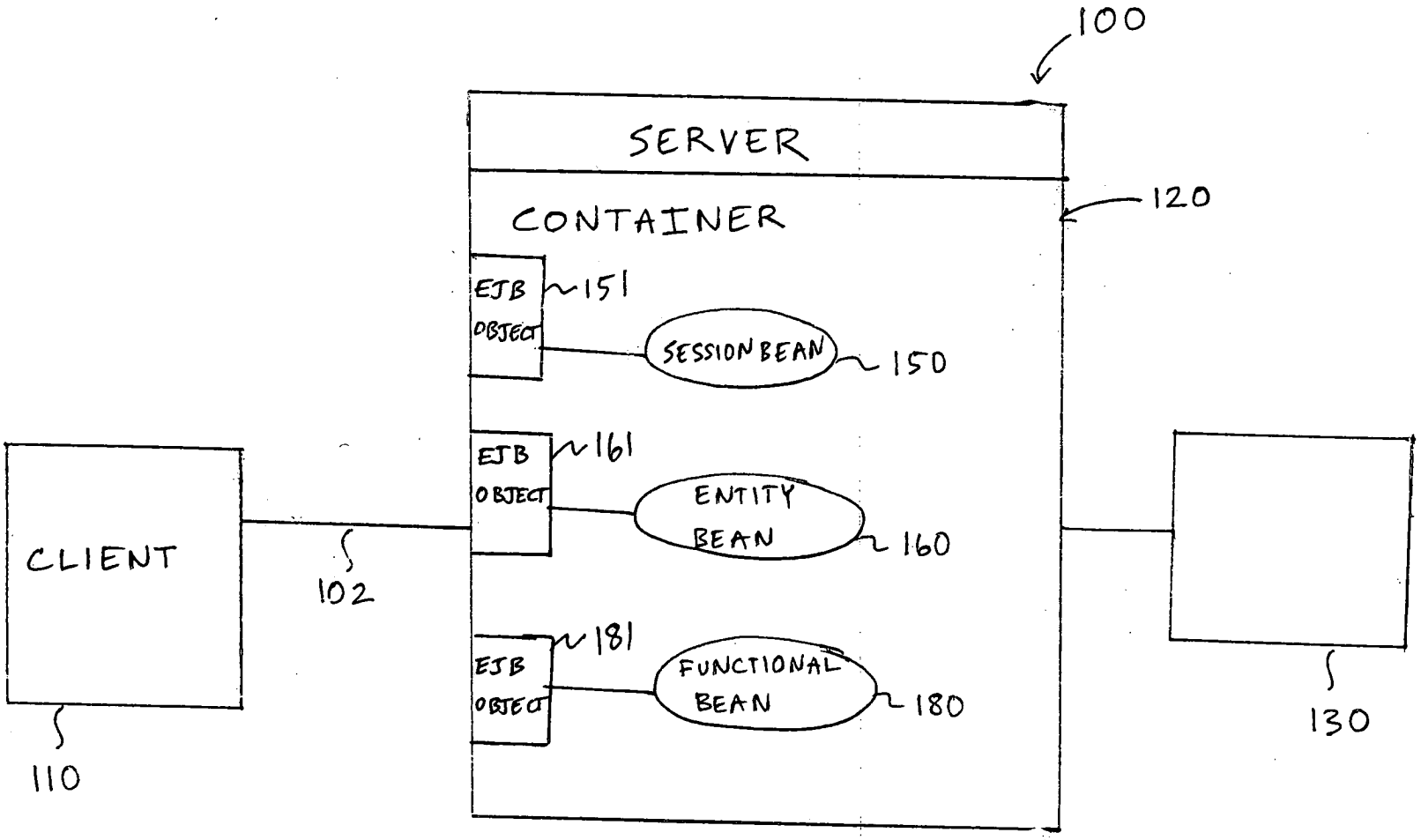
100
SERVER
CONTAINER
120
EJB OBJECT
151
SESSION BEAN
150
EJB OBJECT
161
ENTITY BEAN
160
EJB OBJECT
181
FUNCTIONAL BEAN
180
CLIENT
110
102
130

FIG. 1(a)

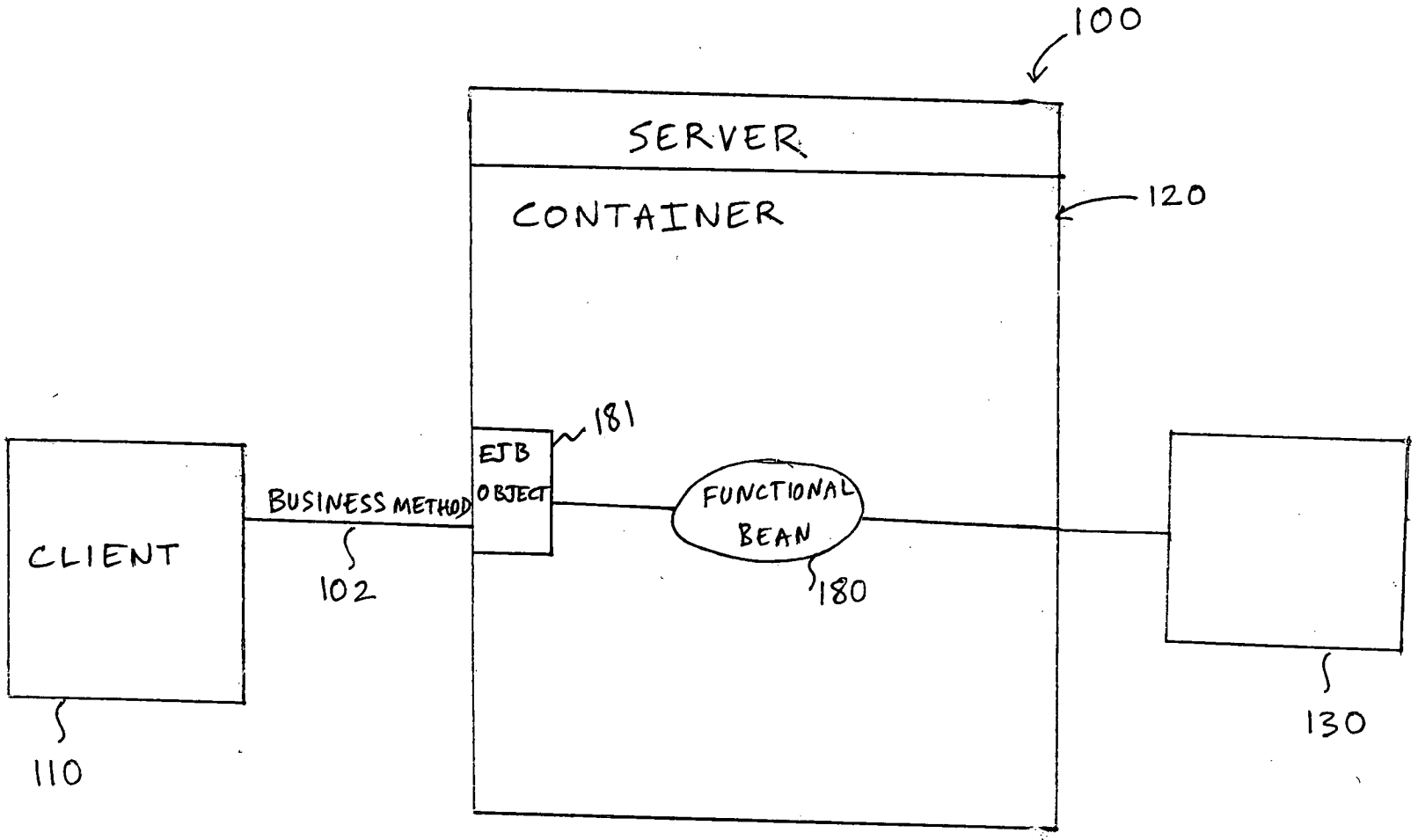
100
SERVER
CONTAINER
120
181
EJB
OBJECT
BUSINESS METHOD
102
CLIENT
110
FUNCTIONAL
BEAN
180
130

FIG. 1(b)

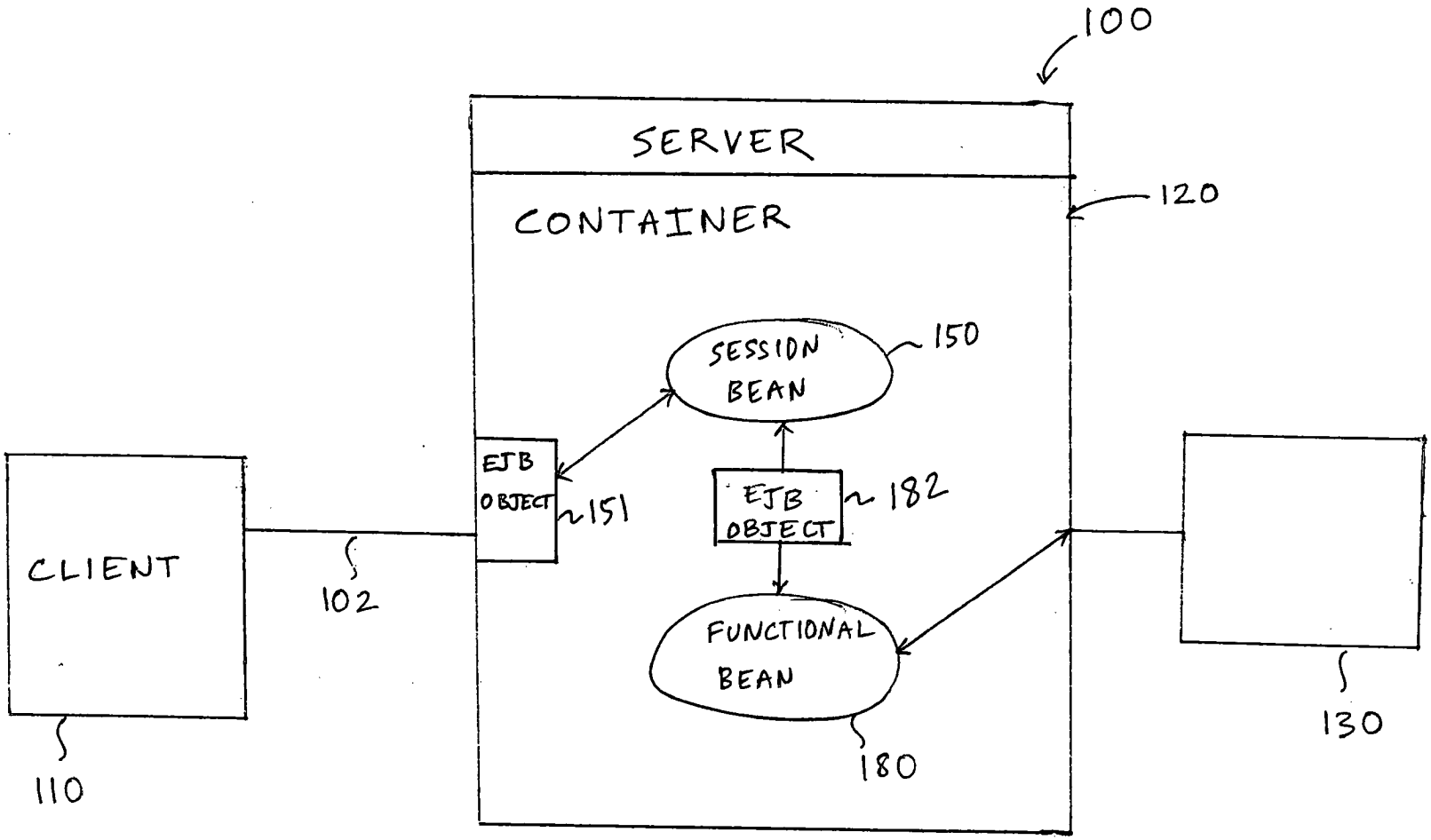
100
SERVER
CONTAINER
120
SESSION BEAN
150
EJB OBJECT
151
EJB OBJECT
182
CLIENT
102
FUNCTIONAL BEAN
180
110
130

FIG. 1(C)

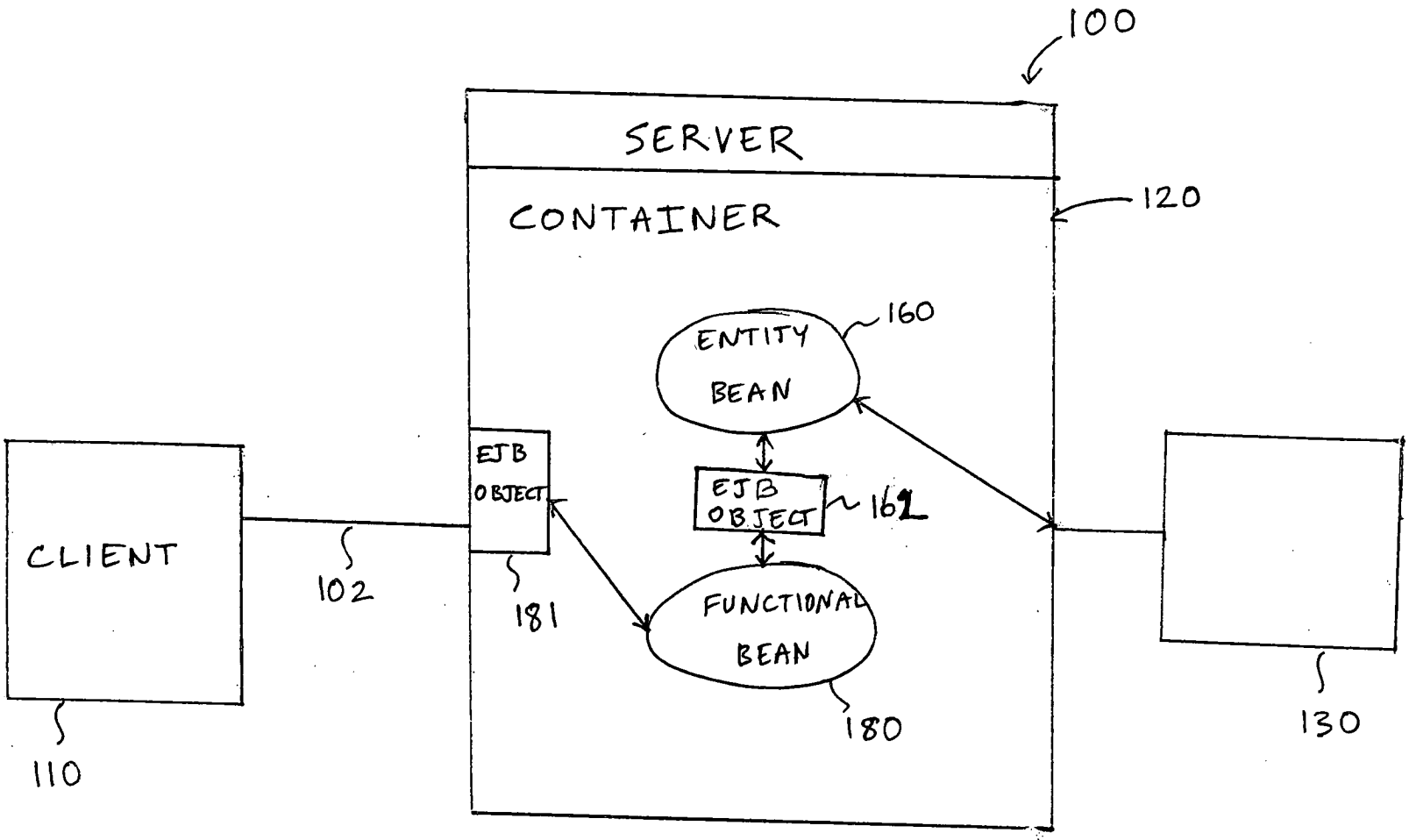
100
SERVER
CONTAINER
120
ENTITY BEAN
160
EJB OBJECT
EJB OBJECT
162
CLIENT
102
181
FUNCTIONAL BEAN
180
130
110

FIG. 1(d)

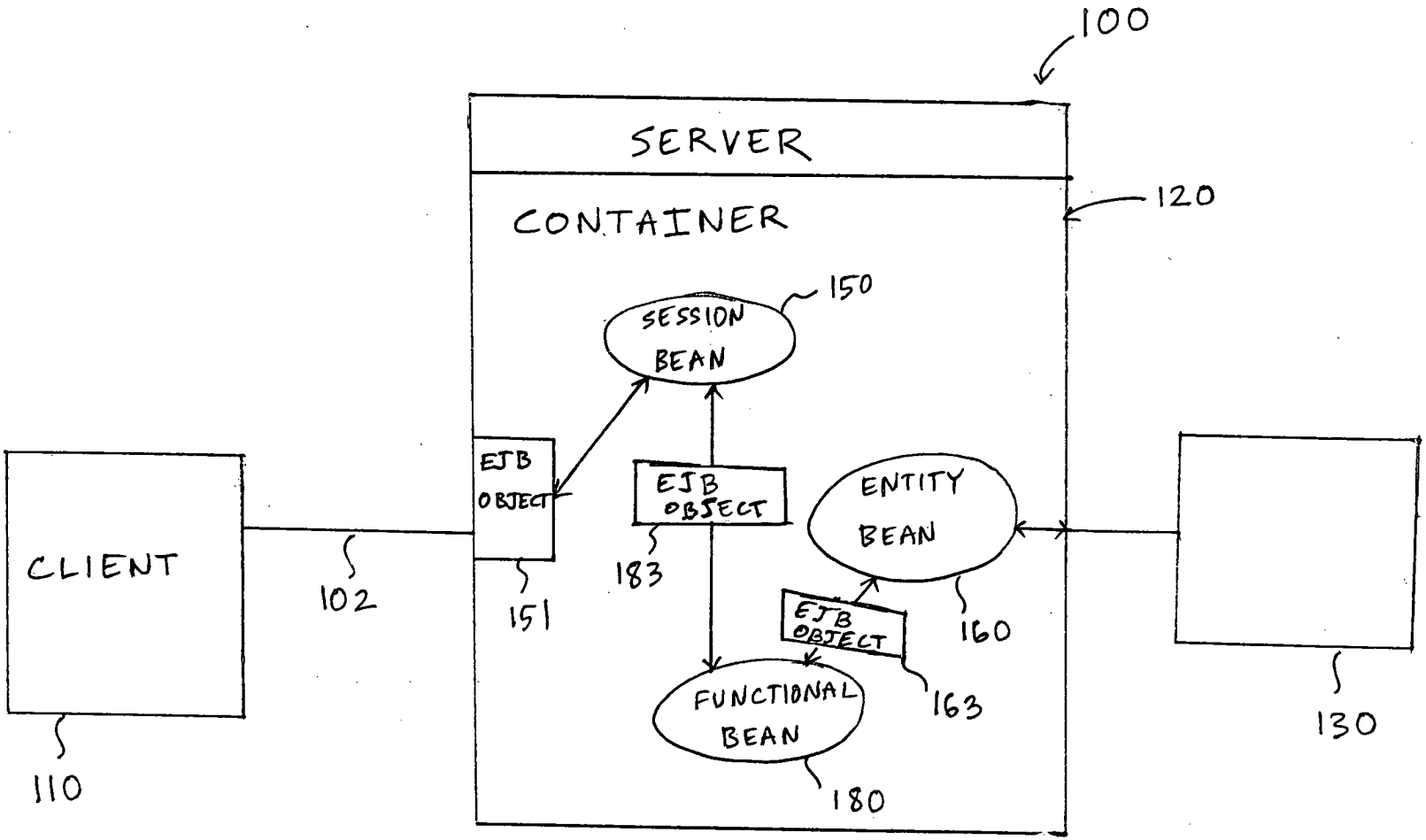
100
SERVER
CONTAINER
120
SESSION BEAN
150
EJB OBJECT
EJB OBJECT
ENTITY BEAN
CLIENT
102
151
183
160
EJB OBJECT
163
FUNCTIONAL BEAN
180
110
130

FIG. 1(e)

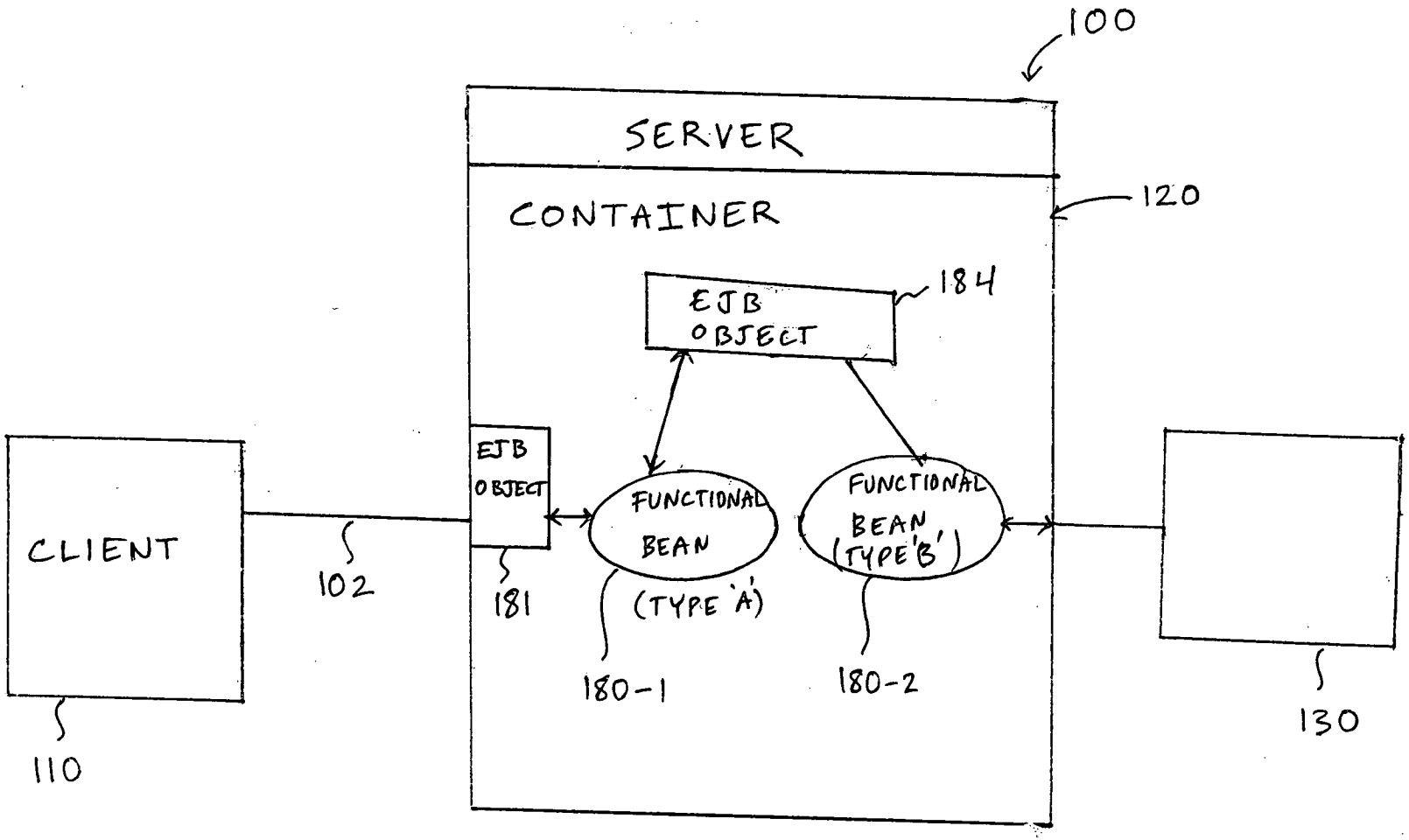
100
SERVER
CONTAINER
120
EJB OBJECT
184
EJB OBJECT
FUNCTIONAL BEAN
(TYPE 'A')
FUNCTIONAL BEAN (TYPE 'B')
CLIENT
102
181
180-1
180-2
110
130

Fig. 1(f)

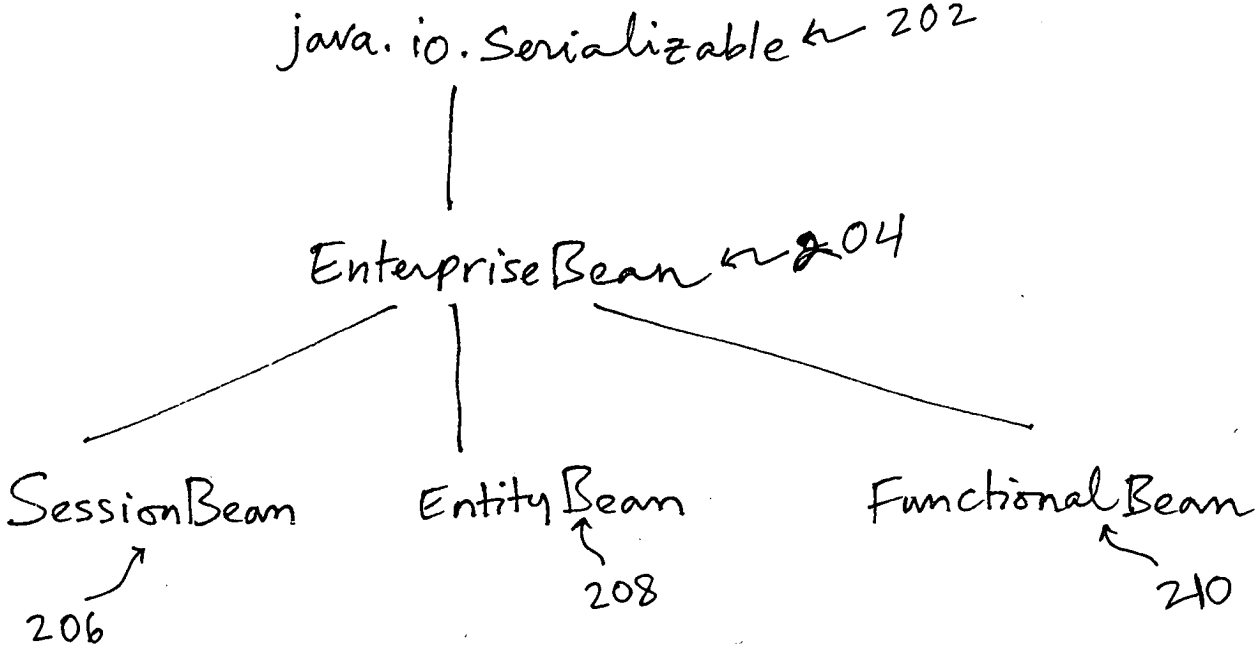
java.io.Serializable
202
EnterpriseBean
204
SessionBean
206
EntityBean
208
FunctionalBean
210

Fig. 2

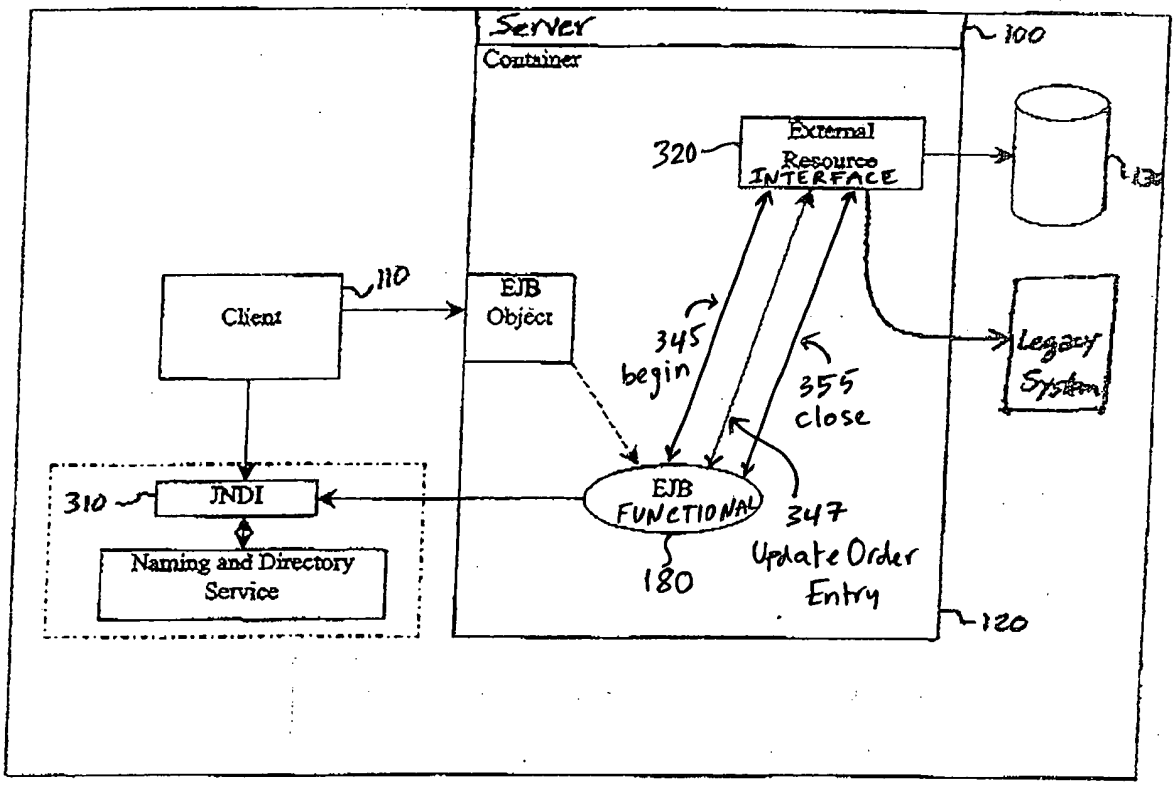
Server
Container
100
External Resource INTERFACE
320
Client
110
EJB Object
345 begin
355 close
Legacy System
JNDI
310
Naming and Directory Service
EJB FUNCTIONAL
180
347
Update Order Entry
120

Fig 3

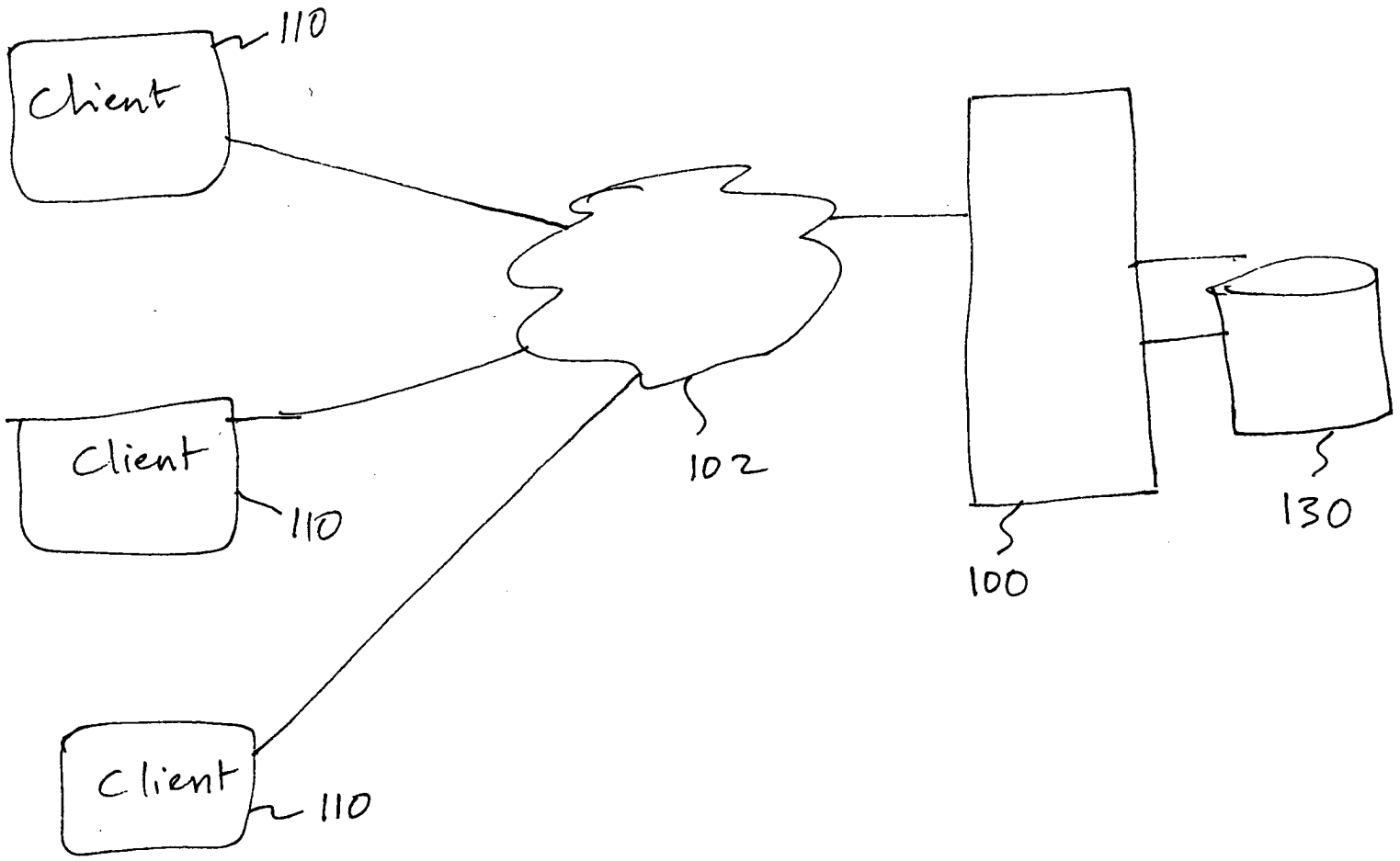

FIG. 4 (a)

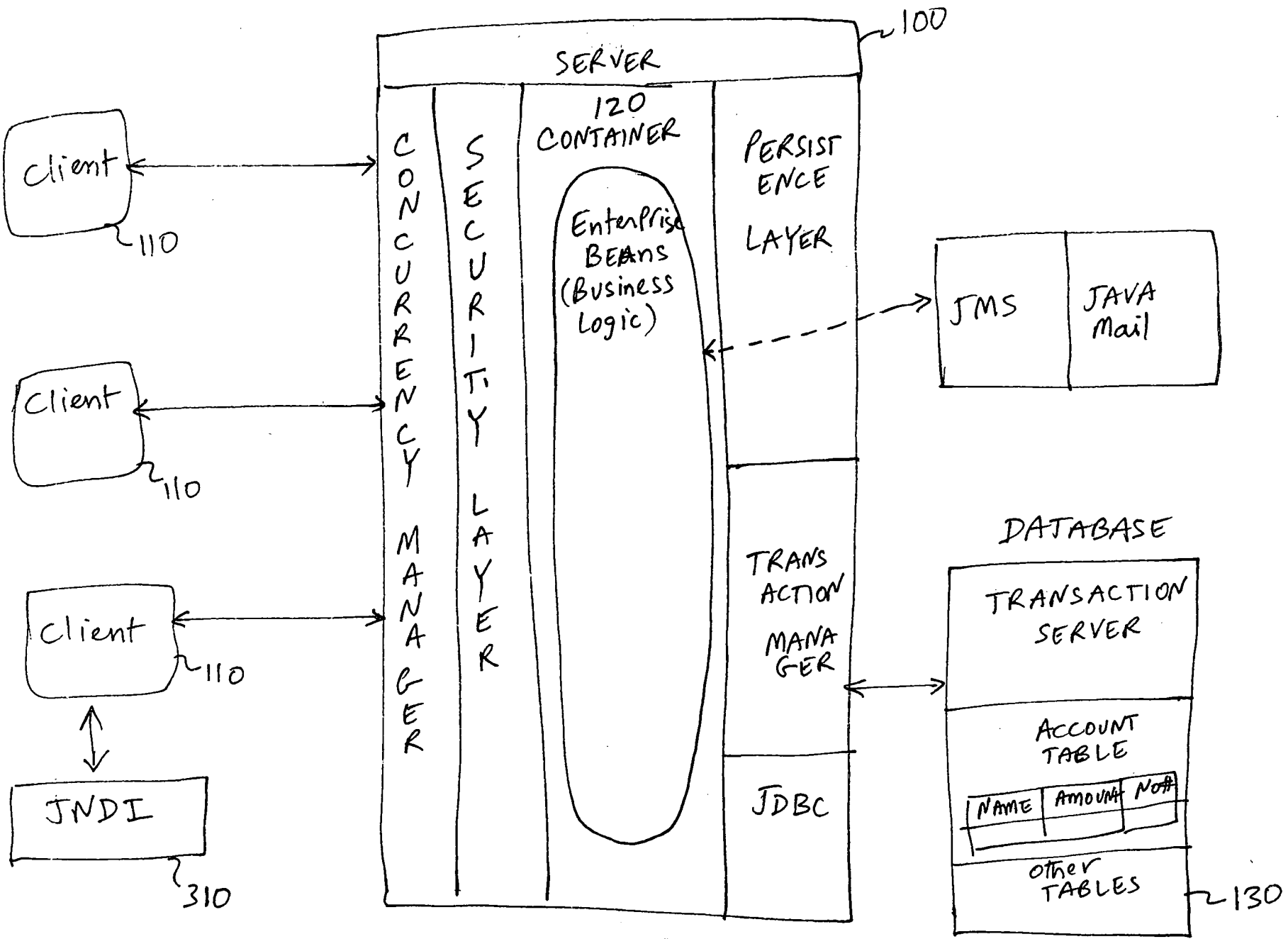
SERVER
100
120
CONTAINER
CONCURRENCY MANAGER
SECURITY LAYER
Enterprise Beans (Business Logic)
PERSISTENCE LAYER
TRANSACTION MANAGER
JDBC
client
110
client
110
client
110
JNDI
310
JMS
JAVA Mail
DATABASE
TRANSACTION SERVER
ACCOUNT TABLE
NAME
AMOUNT
NO#
other TABLES
130

FIG. 4(b)

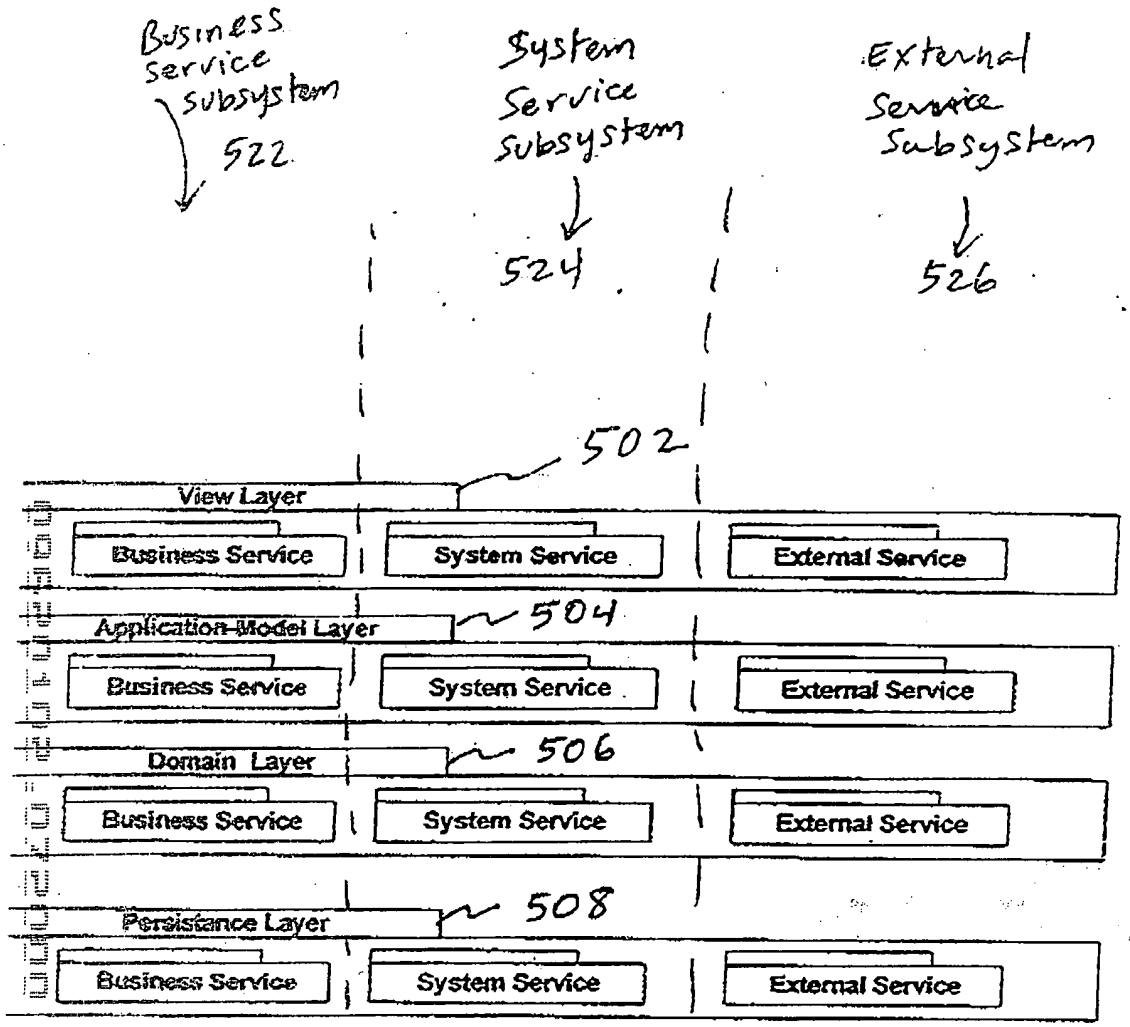
Business Service subsystem
522
System Service subsystem
524
External Service Subsystem
526
502
View Layer
Business Service
System Service
External Service
504
Application Model Layer
Business Service
System Service
External Service
506
Domain Layer
Business Service
System Service
External Service
508
Persistance Layer
Business Service
System Service
External Service
500

FIG. 5

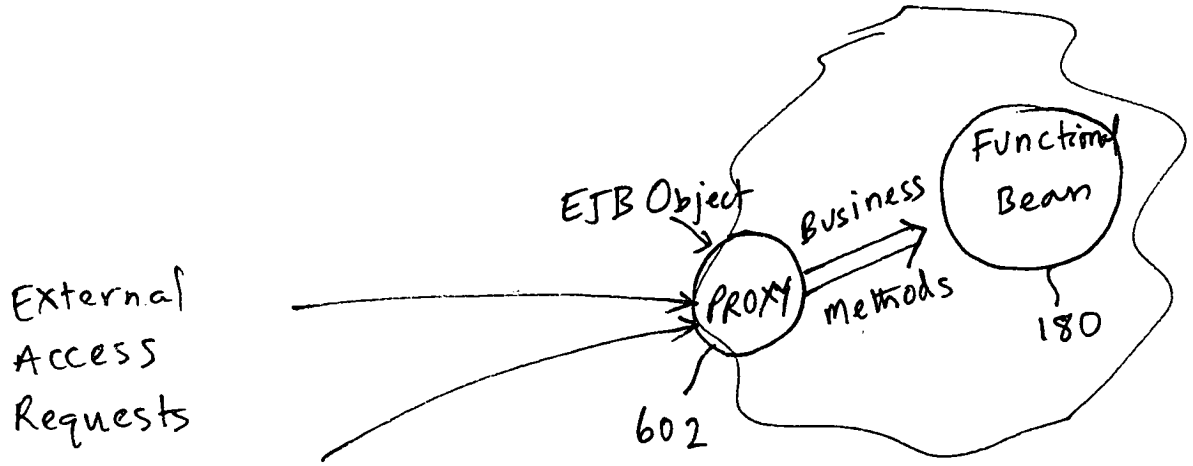

Fig. 6

09820102_072000

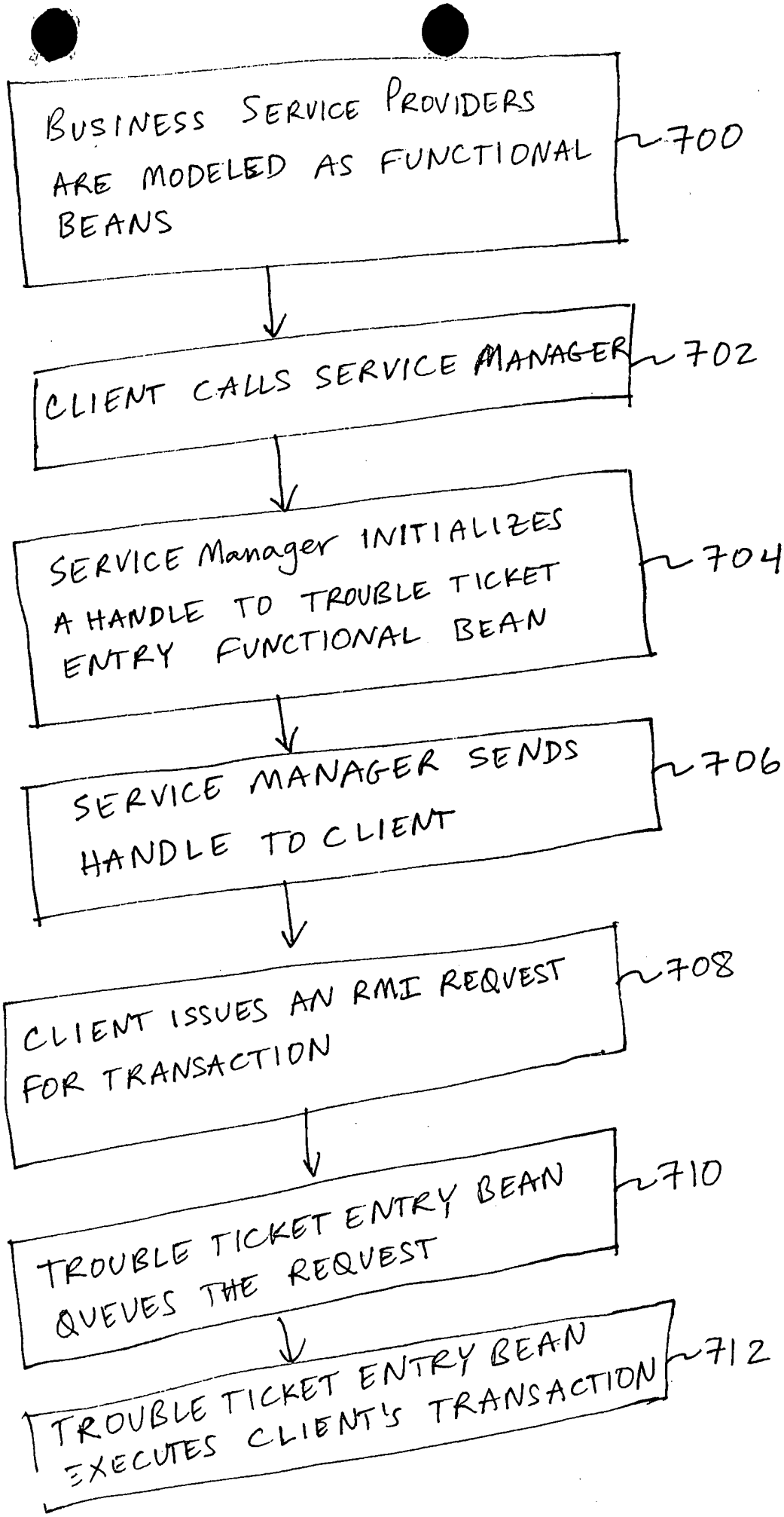
BUSINESS SERVICE PROVIDERS ARE MODELED AS FUNCTIONAL BEANS
700
CLIENT CALLS SERVICE MANAGER
702
SERVICE Manager INITIALIZES A HANDLE TO TROUBLE TICKET ENTRY FUNCTIONAL BEAN
704
SERVICE MANAGER SENDS HANDLE TO CLIENT
706
CLIENT ISSUES AN RMI REQUEST FOR TRANSACTION
708
TROUBLE TICKET ENTRY BEAN QUEUES THE REQUEST
710
TROUBLE TICKET ENTRY BEAN EXECUTES CLIENT'S TRANSACTION
712

FIG. 7

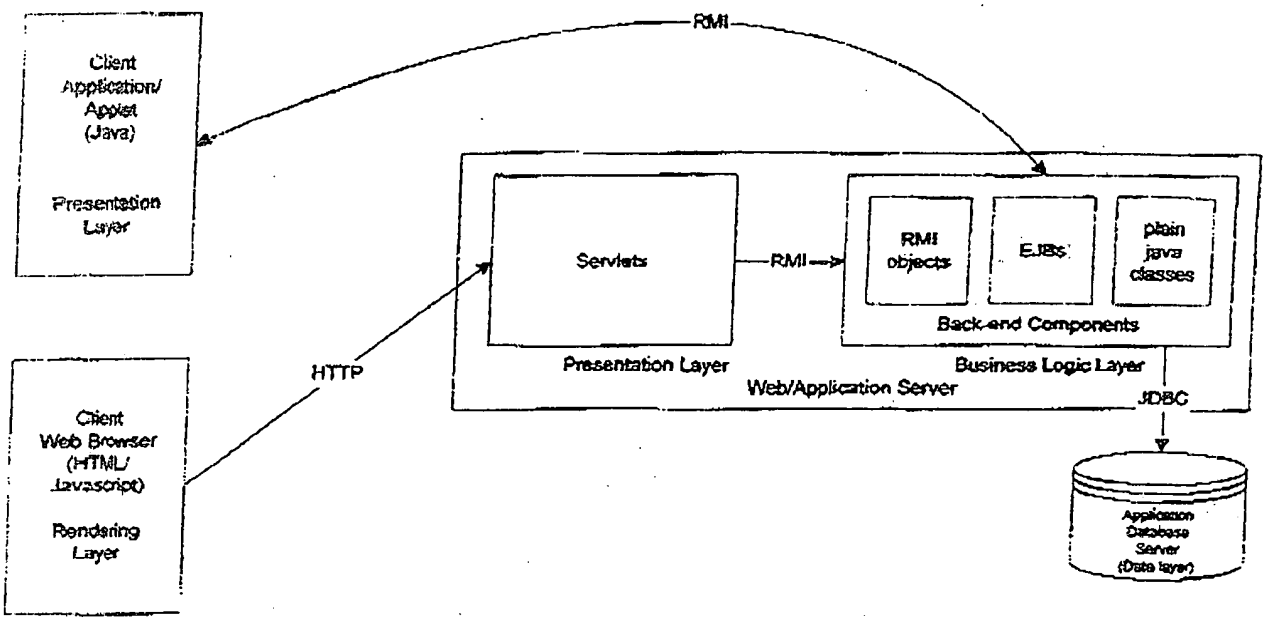
Client
Application/
Applet
(Java)
Presentation
Layer
RMI
Servlets
RMI
RMI
objects
EJBs
plain
java
classes
Back-end Components
Presentation Layer
Business Logic Layer
Web/Application Server
JDBC
HTTP
Client
Web Browser
(HTML/
Javascript)
Rendering
Layer
Application
Database
Server
(Data layer)

Fig 8